

May 11, 2006

HANCOR, INC.  
MIDWEST AREA OFFICE  
ROGER L BALDWIN  
21 CARRIGE LANE  
BURNSVILLE MN 55337-4045

ADVANCE DRAINAGE SYSTEMS,  
INCORPORATED  
TIM LANG  
1313 CHATHAM LANE  
WOODSTOCK IL 60098

Re: Description: STORMWATER TREATMENT DEVICE  
Manufacturer: ADVANCE DRAINAGE SYSTEMS, INCORPORATED  
Product Name: ADS WATER QUALITY UNITS  
Model Number(s): 4220WQAXX (12" inlet / 12" outlet with 6.75" outlet orifice), 4220WQBXX (12" inlet / 12" outlet with 4.76" outlet orifice), 4240WQAXX (12" inlet / 12" outlet with 9.81" outlet orifice) and 4240WQBXX (12" inlet / 12" outlet with 6.49" outlet orifice)  
Note: First two numbers of the model indicates nominal inside diameter in inches of unit, Second two numbers of the model indicates nominal length in feet of unit, "XX" at the end of the model indicates diameter of the bypass. "OO" at the end of the model number indicates there is no bypass.  
Product File No: 20060049

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters Comm 82 through 84, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an approval based on the Wisconsin Statutes and the Wisconsin Administrative Code. This approval is valid until the end of May 2011.

This approval is contingent upon compliance with the following stipulation(s):

- The review undertaken by Commerce staff does not include review and/or approval of this submittal as meeting DNR specifications for ch. NR 151.
- When this product is installed, the installation must be in accordance with the manufacturer's printed design installation instructions, ch. Comm 82, plan approval under s. Comm 82.20, and any product approval stipulations. When there is a conflict between manufacturer's installation instructions and plan approval conditions or product approval stipulations, the plan approval conditions or product approval stipulations will take precedence.
- Installation of this product must be in accordance with the manufacturer's printed installation instructions. A copy of the manufacturer's installation instructions must be given to the property owner, installer and submitted along with other information required by the governing agency for the installation.
- Inspection, maintenance and cleaning of this product shall be performed at intervals specified by the manufacturer in accordance with ADS Product Note 3.140 (current edition) and HDPE Water Quality Unit Specifications (undated); see also [www.ads-pipe.com](http://www.ads-pipe.com). In the first year of operation, quarterly inspection of the sediment and oils chambers shall be inspected. At a minimum the unit shall be cleaned when the sediment volume has reached 20%, at least annually to provide peak performance; as per ADS Quality Unit Maintenance Guidelines (undated), or in accordance with plan approval or s. Comm 82.21, whichever is more restrictive.
- Water tightness: All joints and seals shall perform to pressures up to 30 psi, in accordance with ASTM F477 and AASHTO M294.

- Labeling: The Stormceptor Water Quality Unit series are permanently labeled as follows and located as listed below:

Example: 3620 WQA/WQB XX

Where: 36 = inside diameter of modified sections of corrugated HDPE pipe, N-12

20 = the length in feet of the sectioned corrugated HDPE pipe, N-12 (also 40 ft. length)

WQA = are units having larger outlet diameters, allowing larger flows; designed to remove up to #140 sieve particles

WQB = are units having smaller diameter outlets, allowing smaller flows; designed to remove up to #200 sieve particles

XX = diameter of the bypass

- This product will produce an effluent having concentration values for TSS as listed in Table ADS-1, when the influent flow and loads meet the conditions as specified.

Table ADS- 1  
Stormwater and Clearwater Treatment  
Minimum Sediment Removal by ADS 4220/4240WQA/WQB  
By Flow (in cfs) and TSS Influent Test Material

Flow Rate (cfs)	TSS Influent Equivalent Test Material*	Adjusted+ TSS Influent in mg/L	Adjusted + TSS Effluent in mg/L.....
1.0	F-95 Sand	345.3	26.4
1.0	OK-110 Sand	349.1	27.4
1.25	OK-110 Sand	200.0	35.9
1.25	OK-110 Sand	167.7	37.4
1.25	OK-110 Sand	440.6	35.6
1.25	OK-110 Sand	260.0	18.2
1.5	OK-110 Sand	247.5	27.5
1.5	OK-110 Sand	177.0	21.0
1.5	F-95 Sand	311.3	40.1
2.0	F-95 Sand	316.7	87.9

\* Specific gravity of test material = 2.65.

+ Adjusted geometric mean and use of scaling coefficient by model for effluent concentrations.

- This product will produce an effluent having concentration values for Oil & Grease as listed in Table ADS-2, when the influent flow and loads meet the conditions as specified.

Table ADS- 2  
Stormwater and Clearwater Treatment  
Minimum Oil Removal Efficiencies and Concentrations  
by Flow Rate an Influent Concentration  
For ADS 4220WQA/WQB and 4240WQA/WQB

Flow Rate	0.5 cfs	1.0 cfs	1.5 cfs	2.0 cfs
	Influent Oil Concentration			
	100 mg/L	50 mg/L	50 mg/L	50 mg/L
Oil Removal Efficiency +	92%	84%	77%	55%
Effluent Oil Concentration +	8 mg/L	8 mg/L	11.5 mg/L	22.5 mg/L

+ Adjusted effluent removal and concentrations reflect scaling coefficient for effluent values.

- Labeling: This product is labeled along the stripe on the product in the middle of the unit with the model number, customer name and quote number using a paint marker. The product is also labeled using a hot stamp to identify the manufacturing plant, year and month of when the product was manufactured.

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The department is in no way endorsing this product or any advertising, and is not responsible for any situation which may result from its use.

Sincerely,

Jean M. MacCubbin, CST  
Engineering Consultant--Plumbing Product Reviewer  
Commerce; Safety & Buildings Div.  
PO Box 2658  
201 W Washington Ave.  
Madison WI 53703-2658  
Phone: 608-266-0955; Fax: 608-283-7456  
E-mail: Jean.MacCubbin@wisconsin.gov